

**Notice of Allowability****Application No.**

09/600,787

**Examiner**

Samuel W Liu

**Applicant(s)**

JARMAN ET AL.

**Art Unit**

1653

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to Papers filed 8-13-03 and 1-16-03.
2. ☒ The allowed claim(s) is/are 1-2, 4-6 and 14-18.
3. ☐ The drawings filed on \_\_\_\_\_ are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☒ All    b) ☐ Some\*    c) ☐ None    of the:
    1. ☒ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
  - \* Certified copies not received: \_\_\_\_\_.
5. ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
  - (a) ☐ The translation of the foreign language provisional application has been received.
6. ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application. **THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

7. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
8. ☐ CORRECTED DRAWINGS must be submitted.
  - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
    - 1) ☐ hereto or 2) ☐ to Paper No. \_\_\_\_\_.
  - (b) ☐ including changes required by the proposed drawing correction filed \_\_\_\_\_, which has been approved by the Examiner.
  - (c) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No. \_\_\_\_\_.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet.

9. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

- |  |  |
|--|--|
| 1 <input type="checkbox"/> Notice of References Cited (PTO-892)  | 2 <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)         |
| 3 <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                    | 4 <input checked="" type="checkbox"/> Interview Summary (PTO-413), Paper No. _____ |
| 5 <input checked="" type="checkbox"/> Information Disclosure Statements (PTO-1449), Paper No. _____    | 6 <input checked="" type="checkbox"/> Examiner's Amendment/Comment                 |
| 7 <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit of Biological Material | 8 <input type="checkbox"/> Examiner's Statement of Reasons for Allowance           |
|  | 9 <input type="checkbox"/> Other   |

Art Unit: 1653

This Office action is in response to (i) applicants' amendments filed 13 August 2003 which amends claims 1-2 and adds claims 14-18, (ii) applicants' amendment filed 16 January 2003 which cancels claim 3 and amends claim 1, and (iii) applicants' petition for extension of time of one month filed 13 August 2003. The amendments and the petition indicated above have been entered.

The pending claims 1-2 and 4-18 are therefore examined in this Office action.

### **EXAMINER'S AMENDMENT**

An Examiner's Amendment to the record appears below. Should the change and/or additions be unacceptable to Applicant, an amendment may be filed as provided by 37 C.F.R. § 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than payment of the Issue Fee.

Authorization for this examiner's amendment was given in a telephonic interview with Gerard J. McGowan, Jr. on September 23, 2003.

#### **Amendments to the specification:**

The abstract has been amended as follows:

Anti-freeze protein comprising at least 40% of the amino acids serine, threonine and asparagine and having at least 80% of sequence identity with the amino acid sequence of SEQ ID NO:1 as well as modified forms thereof.

The amended abstract has been placed in the separate sheet and attached with this Examiner Amendment (see the attachment).

In page 18, line 9, change "FPLC" to "fast performance liquid chromatography (FPLC)".

In page 19, line 30, change "SDS PAGE" to "sodium dodecylsulphate Polyacrylamide gel electrophoresis".

In page 20, line 7, change "PVDF" to "polyvinylidene fluoride (PVDF)".

Art Unit: 1653

In page 20, line 8, change "CAPS" to "3-(Cyclohexylamino)-1-propanesulfonate (CAPS)".

In page 20, line 16, change "-20 OC" to "- 20 °C".

**Amendments to the claims:**

In claim 1 (*twice amended*), change "overlap with" to "sequence identity to".

In claim 4 (*twice amended*), change "the overlap" to "the sequence identity".

In claim 5 (*twice amended*), change "the overlap" to "the sequence identity".


Delete claims 7-13.

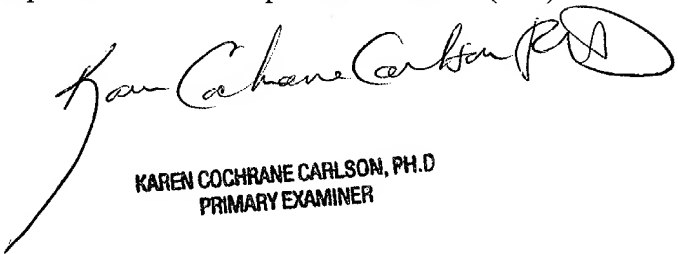
In claim 15 (*amended*), change "naturally occurs in a plant" to "is derived from a plant and"; and change "Serine, Threonine and Asparagine" to "serine, threonine and asparagine".

**Conclusion:** claims 1-2, 4-6 and 14-18 are allowable over the art of record.

Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Samuel Wei Liu, Ph.D. whose telephone number is (703) 306-3483. The Examiner can normally be reached daily except alternate Fridays from 8:30 A.M. to 5:30 P.M. If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Christopher Low, can be reached at (703) 308-2329. The official fax phone number for Technology Center 1600 is (703) 308-4242.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 1600 receptionist whose telephone number is (703) 308-0196.

  
Samuel Wei Liu, Ph.D.  
September 23, 2003

  
KAREN COCHRANE CARLSON, PH.D.  
PRIMARY EXAMINER

### ABSTRACT

Anti-freeze protein comprising at least 40% of the amino acids serine, threonine and asparagine and having at least 80% of sequence identity with the amino acid sequence of SEQ ID NO:1 as well as modified forms thereof.